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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,944	04/14/2004	Steven J. Visco	PLUSP040	7287

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EXAMINER

DOVE, TRACY MAE

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/824,944	Applicant(s) VISCO ET AL.	
	Examiner Tracy Dove	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2006.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-96 is/are pending in the application.
 4a) Of the above claim(s) 1-20, 36-40, 44-47, 52-54, 57-74, 79, 80, 86-93 and 96 is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 21-26, 28-35, 41-43, 48-51, 55, 56, 75-78, 94 and 95 is/are rejected.
 7) ☒ Claim(s) 27 and 81-84 is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7 IDSs</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group II, claims 21-84 and 86-96, in the reply filed on 6/20/06 is acknowledged. Applicant's reply did not include an election of species, as required by the Examiner. During a telephone interview of 8/15/06, Applicant elected lithium as the anode material, the glass ceramic of claim 32 as the impervious ionically conductive layer and sea water/nickel collector as the cathode structure. Applicant stated claim 21-35, 41-43, 48-51, 55, 56, 75-78, 81-84, 94 and 95 read on the elected species. The telephone interview summary was mailed on 8/17/06.

Therefore, claims 1-20, 36-40, 44-47, 52-54, 57-74, 79, 80, 85-93 and 96 are withdrawn from consideration.

Information Disclosure Statement

The information disclosure statements (IDSs) submitted on 10/6/04, 4/15/05, 3/1/06, 3/13/06, 5/26/06, 6/8/06 and 7/31/06 have been considered by the examiner.

Claims Analysis

The preamble of the claim 21 recites "A battery cell, comprising", which is not given patentable weight. If the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction. (MPEP 2111.02).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 21, 30-35, 41-43, 48-51, 55, 56, 75-78, 94 and 95 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-11, 17, 44, 48-53, 56-60, 62 and 66-69 of copending Application No. 10/772,157 (US2004/0197641). Although the conflicting claims are not identical, they are not patentably distinct from each other because both require an active metal anode, a cathode structure and an ionically conductive protective member.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 21-35, 41-43, 48-51, 55, 56, 75-78, 81-84, 94 and 95 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 23-25 of copending Application No. 11/245,472 (US2006/0078790). Although the conflicting

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claims are not identical, they are not patentably distinct from each other because both require a battery cell comprising an active metal anode, a cathode structure and a protective architecture on a surface of the anode.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 21-26, 28-35, 41-43, 48-51, 55, 56, 75-78, 94 and 95 are rejected under 35

U.S.C. 102(e) as being anticipated by Jonghe et al., US 2005/0100793 A1.

Jonghe teaches a cell 100 including a lithium electrode 102, a protective membrane 104 on the surface of the lithium electrode 102, an electrode structure 106 and a lithium electrode current collector 108 (Figure 1). The layer 106 includes a porous catalytic electronically conductive support structure 106a, an electrochemically active material 106b and an aqueous electrolyte 106c. Salt water may act as both the electrochemically active component and the ionically conductive component. A porous nickel sheet is the electronically conductive support structure (0038-0039). The protective membrane includes a first layer of material 202 and a second layer of material 204. The first layer of material is ionically conductive and chemically compatible with the lithium electrode 102. The layer 202 may be a semi-permeable membrane

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separator impregnated with a nonaqueous liquid or gel, for example, a microporous polymer impregnated with a liquid or gel phase, such as are used traditionally in lithium metal batteries. For example, such as a microporous separator immersed in a liquid, e.g., propylene carbonate, dimethoxy ether, or a nonaqueous gel, e.g., polyethylene oxide or polyacrylonitrile swollen with PC or DME (0061). The second layer 204 is substantially impervious, ionically conductive and chemically compatible with the electrode structure 106 (0065). The second layer 204 may be a glass-ceramic material having the composition shown in paragraph [0066]. The cell may be fabricated in planar or tubular form according to well known techniques in the art (0081). The ionic conductivity of the glass-ceramic is in the range of about 10^{-7} to 10^{-5} S/cm or greater (0068). All layers of the protective membrane 104 have high ionic conductivity, at least 10^{-5} S/cm (0060). Thus the claims are anticipated.

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Claims 21, 30-35, 41-43, 48-51, 55, 56, 75-78, 94 and 95 are rejected under 35 U.S.C. 102(e) as being anticipated by Visco et al., US 2004/0197641.

See at least claims 1, 11, 17, 44, 48-53, 56-60, 62 and 66-69. Thus the claims are anticipated.

Allowable Subject Matter

Claims 27 and 81-84 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Note the two cited prior art patent publications and the present application are commonly owned. Thus, US2004/0197641 and US2005/0100793 not available as prior art under 35 U.S.C. 103(a).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracy Dove whose telephone number is 571-272-1285. The examiner can normally be reached on Monday-Thursday (9:00-7:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 2, 2006


TRACY DOVE
PRIMARY EXAMINER